

Plan to Accelerate [Cement & Concrete] v201025

Axis: 1. Transitioning Energy, Industry and Transport ▾

Key objective: 2. Accelerating zero and low emission technologies in hard-to-abate sectors ▾

Other relevant objectives: 12. Sustainable and resilient constructions and buildings ▾

4. Transitioning away from fossil fuels in a just, orderly and equitable manner ▾ 15. Solid waste management ▾

25. Reduction of non-CO₂ gases ▾ 20. Climate and sustainable finance, mainstreaming climate in investments and insurance ▾

22. Climate integrated public procurement ▾

Solution: to make near-zero- and low-emission cement/concrete the preferred choice in global markets, with efficient use of near-zero- and low-emissions cement/concrete production established and growing in every region by 2030.

Host initiative: Cement & concrete Breakthrough Initiative - Breakthrough Agenda

Participating initiatives (not exhaustive): Breakthrough Agenda Secretariat, the Industrial Deep Decarbonization Initiative (IDDI)*/ the United Nations Industrial Development Organization (UNIDO); The Global Cement and Concrete Association (GCCA); Climate Club; First Movers Coalition (FMC); the International Energy Agency (IEA); Leadership Group for the Industry Transition (LeadIT); Mission Innovation Net-Zero; Industries Mission (MI NZI); Organisation for Economic Co-operation and Development (OECD), UN Climate Technology Centre and Network (CTCN), World Business Council for Sustainable Development (WBCSD) and ITA/Mission Possible Partnership, ConcreteZero.

**IDDI's submission to the PAS is not to be construed as endorsements by or reflective of the official positions of member governments: the Federal Government of Brazil, Government of Canada, Federal Government of Germany, Government of India, Government of Japan, Kingdom of Saudi Arabia, Federal Government of the United Arab Emirates, Government of the United Kingdom and the United States Government.*

Scope: [Addressed scope, such as specific technologies and geographic/sectoral focus, if any.]

- 2030 goal: **Make near-zero- and low-emissions cement/concrete the preferred choice in global markets**
 - Geographic: Global with a special focus on the global south, where 80% of global cement consumption takes place.
 - Sectoral: The scope of the plan covers cement production and its downstream product, concrete.
 - Other aspects: The plan prioritises development and adoption of definitions, standards and certification, demand creation policies and offtake agreements, public and private finance and de-risking mechanisms, and large-scale demonstration projects with robust knowledge-sharing platforms to accelerate replication globally.
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Levers assessment:

Risk-informed decision-making: Medium maturity ▾

Rationale:

- Knowledge sharing is a critical element in making any risk-informed decision making in regards to the investment in and adoption of technology solutions to achieve decarbonisation of the sector. It is essential therefore a mature and effective system is supported
- Granular, robust, data on the type of concrete, its embodied carbon, and where it is being used crucial to unlocking demand side's ability to contribute to reducing climate impact through improved efficiencies in structure and mix design.
- High risk around CCUS

Progress to date:

- ConcreteZero members (mostly UK based contractors, developers and engineers) reported on over 1 million m3 of concrete, including 600 mix designs used over 120 projects as part of a trial to reporting pilot in 2023-2024. Learnings from the pilot have been brought into a recently launched final reporting framework to support consistent and efficient concrete embodied carbon reporting for the demand side.

Challenges:

- Insufficient and inconsistent data on concrete climate impact, and even volumes used, is a roadblock to the demand side's ability to make risk-informed decisions as to their concrete use.

Technology shifts: Medium maturity ▾

Rationale: The cement industry has identified several technology shifts which could drive decarbonisation. These include:

- A rapid shift from OPC (ordinary Portland Cement) towards blended cement can have an immediate decrease of emissions and is available and scalable right now. This can be done by reducing the Clinker factor (the highest emitting intermediate product) and replacing it with Supplementary Cementitious Materials (SCMs). Co-processing, in which wastes are used to replace fossil fuels and primary resources in production of clinker, a key ingredient of cement, is an established, environmentally sound, and highly regulated waste management technology which results in the reduction of fossil fuels and primary materials consumption, as well as reduction in waste disposal.
- Carbon Capture Utilisation and Storage (CCUS) technology is an essential component of roadmaps for net-zero concrete to address process emissions of production. A full-scale deployment of CCUS could fully eliminate the process emissions. Strategic public funding for the innovation and deployment of advanced low carbon technologies is needed, targeting R&D as well as CAPEX/OPEX (development, industrial deployment and operation, including transport).
- shared knowledge from demonstrations in other sectors can help accelerate cement and concrete sector progress

Progress to date:

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- The worldwide clinker factor (clinker % in cement) is currently around 0.71 according to the IEA (<https://www.iea.org/energy-system/industry/cement>). In GCCA's roadmap, from a baseline of 0.63 in 2020 the clinker BINDER ratio is projected to reduce to 0.58 and 0.52 by 2030 and 2050 respectively. MPP's net zero scenario proposes that the average cement mix includes 10% of calcined clay by 2050, representing around 530 Mt/yr of clay calcination capacity.
- CCUS technology tracker by LeadIT and GCCA reports progress across different CCUS technologies and regions. The GCCA 2030 milestone is to have CCUS fully operational at scale at 10 cement plants around the world. Policy support in limited locations has enabled the industry to be on track for its 2030 milestone.
- Coprocessing: In Europe the cement sector is substituting on average 53% of its fossil fuel with waste derived fuels. Several cement plants already operate at almost 100% substitution of fossil fuels. Globally, the figure is estimated to be only around 6% showing the further potential of managing wastes in cement kilns. The GCCA ambition is to reach 22% by 2030.

Challenges:

- Cement, concrete, design, and construction codes and standards, as well as building regulations, are not always aligned, restricting the use of low clinker cement/concrete. Not enough necessary support for the timely review, approval and publication of standards to ensure the latest standards are available.
- CCUS capital and operational expenditure is very high, lack of financial incentives (e.g. CO2 pricing, green premium), legal framework for CO2 storage is often absent or not mature enough.
- The cement industry lacks enabling policy frameworks to scale up co-processing in its production. Kiln electrification remains at a low TRL

Knowledge & Capacity building: Medium maturity ▾

Rationale:

- The sharing of relevant and effective knowledge and information/data across all involved stakeholder groups will be critical for both the establishment of trust and capabilities to deliver on sector decarbonisation goals. This is needed within the broad global cement industry (approximately 3,300 plants with a low concentration of actions) and across the construction value chain where alignment is needed to unlock and accelerate adoption of lower-carbon cement solutions.
- We need to make advances in the EMDEs where 80% of global cement production takes place. To accelerate cement decarbonisation, national cement and concrete industries need to develop their own net-zero roadmaps tailored to their specific market and policy context.
- Concrete users need to be involved in the local testing and piloting of lower carbon materials, to develop familiarity with their constructability and performance characteristics.
- Scaling CCUS requires strong institutional capacity, technical expertise, and skilled workforce to design policy, implement standards, and prepare bankable projects. Many countries, especially emerging markets and developing economies (EMDEs), lack the institutional infrastructure needed to regulate, certify, and finance CCUS at scale. Without sustained investment in training, public sector capabilities, and project preparation, CCUS deployment will be delayed and uneven

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Progress to date:

- *More than 50% of the countries (weighted by volume of production) (outside of China) will have detailed roadmaps to zero with a forecast of technology-specific contributions to decarbonization (Including regional roadmaps (EU and Latam)).*
- *Released whitepaper on the successful application of AI to collate and enhance existing knowledge sharing and databases on enabling decarbonisation technologies*
- *EPD use is increasingly common in the industry but not in the Global South. (ConcreteZero published a concrete user focused guide to concrete specifications, setting out the roles and responsibilities across project teams to facilitate greater uptake, and knowledge sharing, of lower carbon concrete solutions.)*
- *Collation of sector progress and singpost to pioneering projects through LeadIt/GCCA cement technology tracker and the MPP green project pipeline*
- *The breakthrough initiative successfully hosted three Thematic Dialogues with its member countries and, given their success, plans to continue them.*
- *Cement Breakthrough has contributed to multiple Knowledge Sharing webinars facilities by the Net-Zero Industries Award, and also fostered contributions and prize winners in outstanding projects in cement decarbonisation. GCCA and others have also contributed projects such as these at an increased level of knowledge sharing that previously found in our industry through the Net-Zero Industries "Global Knowledge Exchange Platform" with database sharing, infographics and public webinars.*

Challenges:

- *The value chain of the cement and concrete is vast with many stakeholders that can unlock the dissemination and acceptance of low- and near-zero-carbon cement/concrete.*
- *Lack of consistent, robust data on concrete and its embodied carbon is a barrier to concrete users visibility of how best they can address these emissions.*
- *Not all jurisdictions apply use of EPDs, and governments do not always require use of EPDs in Public Procurement*

Inclusive decision-making governance & design:

Rationale: 

Progress to date:

Challenges:

Standards & Taxonomies: Medium maturity

Rationale:

- *Harmonised standards and definitions for low carbon cement and concrete have potential to stimulate demand for low carbon procurement.*
- *There are well-established standards in some locations for cement and the use of most SCMs, either in blended cements or as combinations with cements, in the concrete plant. These include standards such as those from ASTM and Europe, which are widely*

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used across many countries. However, there are still locations where SCM use is not optimised because of restrictive requirements in standards.

- *Establishing benchmark quality and inclusions in knowledge required by stakeholders can build industry wide trust and acceptance of managing new technology adoption risk.*
- *Consistent approach to mapping current market availability of concrete embodied carbon onto globally recognised rating systems (i.e. Market Benchmarking) can support international comparison and communication of challenges and opportunities, provide the baseline for decarbonisation roadmaps and support near-term target setting*

Progress to date:

- *IDDI released a paper recommending use of EPDs in ecolabel programs and e-procurement systems which are widely used in many regions.*
- *Whilst there is significant level of consistency in accounting at production level (GHG protocol for cement), at product level, whilst EPDs are increasingly the accepted approach, there are differences in Product Category Rules in China, Nth America and rest of world (mostly european standards).*
- *The GCCA launched a Global Low Carbon Ratings for Cement and Concrete based on EPDs in early 2025. The rating system underpins low carbon procurement by providing a consistent comparable rating system. It was derived with IDDI and designed to meet their need for consistency / harmonisation. It utilises GWP from EPDs and overcomes the fact that EPD standards are not yet harmonised. The design of the ratings recognise that countries are at different stages of the journey by not being in themselves an arbiter of what is low carbon. Countries, or more likely sub-regions, states, cities will use the ratings as a common language to define their own current low carbon, and over time, they will reduce this as supply side decarbonises while providing global consistency.*
- *IDDI set out guidance on harmonization of product category rules (PRCs) for EPDs, including making recommendations for cement and concrete.*
- *Low-carbon cement & concrete standards already exist in some markets e.g. Canada has thresholds defined for low carbon concrete use in public procurement. ConcreteZero has a Low Embodied Carbon Concrete Threshold used for members to the initiative to set near term decarbonisation targets*
- *Existence of open-source tools to assess the carbon footprint of concrete or an entire construction project. Some of these tools allow for comparison of different standards and certification schemes*
- *UK (since 2022) and Singapore (launching this year) market benchmarks have been produced alongside template for other markets interested in replicating the approach. Other notable efforts of market benchmarking US (NRMCA) and Australia (MECLA) are also good references.*

Challenges:

- *Blended cement, in some countries, is not optimized because of restrictive standards*

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- *Underlying embodied carbon data availability and quality is a challenge. Data improvements over time will be a feature of market benchmarks for years to come.*
- *Design and construction codes refer to material standards and may, in isolated cases, state material requirements. A barrier in some jurisdictions can be a lack of a joined-up approach across the material standards for cement, concrete, and the design and construction standards.*
- *EPDS: Harmonisation of PCRs is not straightforward .*
- *Barriers to uptake of EPDs by MSME concrete suppliers in developing countries are perceived cost and complexity, lack of expertise.*
- *Lack of CO2 literacy in some jurisdictions, culture change required.*
- *Lack of necessary support for review, approval and publication of standards to ensure latest SCM standards are available.*

Supply: **Medium maturity** ▾

Rationale:

- *scaling supply for low carbon cement and concrete (high mature)*
- *Scaling supply of near zero cement (low mature)*
- *Gap in making low-carbon cement manufacturing investable and creating the infrastructure needed for a circular and net zero manufacturing environment especially in the Global South where 80% of production comes from.*

Progress to date:

- *Low carbon cement/concrete is used globally at different stages but more can be done*
- *First commercial scale facility capturing transporting and storing 400k CO2/a operational from June 2025 Norway*

Challenges:

- *low carbon cement/concrete roadblocks are standards and codes*
- *near zero cement/concrete*
- *Retrofitting kilns or adopting CCUS requires significant investment. PPP are necessary to make them viable*
- *Alternative materials and low-carbon technologies are not equally available across regions.*
- *Building codes and material standards are slow to accommodate novel cements.*

Demand: **Low maturity** ▾

Rationale:

- *Private procurement has the opportunity to be first adopters to bring their construction, engineering and design expertise to evolve our built environment in line with a shifting construction material landscape.*
- *By prioritizing low-carbon materials in procurement, buyers—from governments to private developers—can signal strong market demand and encourage investment. By setting Green Public Procurement (GPP) rules for low- and near-zero carbon cement and concrete, governments could kick-start a powerful market shift.*

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Progress to date:

- *Some countries have progressed GPP for cement/concrete and developed demand-side policy measures.*
- *Seven countries have committed to the Green Public Procurement Pledge for steel, cement, and concrete launched by IDDI and are starting to report progress against the Pledge levels (e.g. IDDI annual progress reports).*
- *Voluntary demand signals of deeply decarbonised and low-emission cement & concrete start to aggregate in the private sector (e.g. FMC, Sustainable Concrete Buyers Alliance, ConcreteZero), with offtake agreements between buyers and suppliers beginning to be seen*
- *Voluntary initiatives where corporates are already making public commitments towards and progressing against timebound decarbonisation targets (i.e. ConcreteZero) also provide learnings for nascent regulatory efforts.*

Challenges:

- *Awareness and clarity on how to use available rating systems in concrete procurement and specification can be increased. Developing a consensus as to which definitions and ratings to use, ideally ones that support international harmonisation, can also enhance demand side's focus on this topic.*
- *Demand-side policies are fragmented and inconsistent across regions, with few governments adopting binding demand-creation measures.*
- *Current procurement practices often prioritize lowest upfront cost over lifecycle emissions, which disincentivizes greener options, with near-zero-carbon construction materials often more expensive and not financially incentivised. In other words, increasing the weighting of non-cost-based elements in procurement criteria, including upfront and lifecycle carbon impact, can be further prioritised.*
- *Construction and engineering sectors are highly regulated with safety, structural performance, compliance and cost all key considerations in assessment of new construction materials and techniques, alongside carbon. While risk-averse by design, the sector does have the skills and knowledge to consider complex parameters in their decision making, making the incorporation of carbon considerations feasible, pending sufficient data.*
- *Lack of incentives (such as inclusion in building assessment methods and company scope 3 reporting) for those who buy low carbon cement, combined with a difficulty to leverage the willingness to pay green premiums that may exist from those further downstream*
- *Inconsistent or unclear methodologies for measuring embodied carbon make it hard to compare products fairly. Inconsistent and lacking carbon accounting frameworks and rating systems*
- *Disconnect between public procurement project specifications and latest materials standards*
- *Unclear visibility from the demand side on projected volumes of deeply decarbonised cement/concrete to plan appropriately*

Public/private finance: Low maturity ▾

Rationale: *More than 1/3rd of the Net Zero Roadmap delivery relies on investment in Deep Decarbonisation such as CCUS, and the vast majority of global cement production takes place in the global south in geographies which do not yet incentivise carbon reduction with sufficient value to make investment in deep decarbonisation a viable proposition. We need climate financial mechanisms to de-risk large scale deep*

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decarbonisation investment, creating a link between geographies and investors with increasing demand for near zero cement and concrete, and geographies (production) where there is limited or no local demand for such products currently.

Progress to date:

- *GCCA is developing an industry Book & Claim model which we believe has the potential to be a solution.*

Challenges:

- *Achieving deep decarbonization in the Global South will be challenging—especially given that roughly 80% of future construction is projected to occur there.*

Partnerships and collaboration: Medium maturity ▾

Rationale:

- *Driving collaboration and harmonisation in the construction value chain*
- *Understanding the information needs, challenges and opportunities for all those with a role to play to shape the transition to lower carbon concrete.*

Progress to date:

- *Initiatives like ITA aim to lift investment barriers for clean project developers by orchestrating solution implementation and providing tailored support to selected projects to deliver critical cross-sectoral interventions, facilitating alignment across key stakeholders.*
- *Many working groups are already in place and active on cement decarbonisation, including Cement Breakthrough, Clean Energy Ministerial's Industrial Deep Decarbonisation Initiative (IDDI), the many cross border initiatives that are part of cement breakthrough, and equivalent country level initiatives*

Challenges:

- *Low-carbon technologies are often developed in isolation and protected by copyright, preventing rapid adoption*
- *Fragmentation of policies and market mechanisms in different geographies is a blocker for ready exchange of learning between markets.*

Policy & regulatory: Medium maturity ▾

Rationale: *Policy and regulatory enablers play a central role in the ability of the industry to decarbonise. A comprehensive policy framework is needed in each country to make low-carbon cement manufacturing investable, create the infrastructure for net zero manufacturing and stimulate demand for low-carbon cement and concrete products. The long-term success of innovation is highly dependent on the regulatory and standardisation frameworks that will lead to a market transformation and establish market demand for low carbon products.*

Progress to date:

- *CBAM in the EU and CBAM conversations in other parts of the world*
- *CCUS projects delivered with the right policy frameworks, e.g. Norway*
- *Government pledges; e.g. IDDI Green Public Procurement Pledge*

Challenges:

- *Slow changes to public procurement policy to accelerate the adoption of low carbon cements and concrete products*
- *No or limited access to waste and by-products as alternative fuels and materials to reduce our reliance on fossil fuels*

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- Lack of policy and finance mechanism to support CCUS deployment
- Appropriate carbon pricing mechanisms

Public opinion: **Low maturity** ▾

Rationale: Changing the decarbonisation mindset into a growth opportunity will engage policymakers, producers, market participants and consumers with decarbonisation as an opportunity to stay competitive locally and globally and create new green jobs.

Progress to date:

- “Build Clean Now” is a communication campaign coordinated by MPP/ITA to accelerate the pace of clean industry development, emphasising the economic opportunity it represents.
- The Business Breakthrough Barometer is an annual report that captures the voice of business in the net zero transition, including the Cement & Concrete sector. It brings forward clear proof points on risks, gaps and opportunities.

Challenges:

- Industry decarbonisation is still largely perceived as a constraint, rather than an opportunity
- Technologies such as CCUS face public opposition and NIMBY is often based on misconception and a lack of understanding of new technologies, the way they operate, and potential risks.

Expected impact and delivery of this plan on the 2030 targets (if any): **High** ▾

[Details on the expected impact of this plan, including which levers it focus and target/KPIs from the 2030 Climate Solutions, GST, SDGs or other processes]

Cement and concrete are the world’s essential building materials, but we know they account for around 7% of global emissions. Whilst decarbonisation action and progress is underway, the scale of the challenge to achieve this crucial mission requires radical collaboration of governments, policymakers, industry, stakeholders, customers and builders, and the financing community. This is particularly crucial to make advances in the global south where 80% of global cement production takes place and will continue to be needed to deliver prosperous and resilient communities in the face of a changing climate, but where demand for lower or near zero materials does not yet exist.

our missions are:

- 1) to be a catalyst for development of Net Zero **Country Roadmaps** by national cement and concrete industries in full collaboration with the government, and support the subsequent implementation plans.
- 2) to establish a common language for low- and near-zero-emission cement and concrete, and develop **low carbon procurement** to create demand. (IDDI, GCCA, IEA, ConcreteZero, Climate Club)
- 3) to be a catalyst for implementation of **policy enablers** for low carbon and near zero product supply and demand

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- 4) To support capacity building, knowledge transfer and innovation
- 5) to **mobilise finance** to support and incentivise cement decarbonisation projects identified, especially in the Global South.

Potential Impacts by 2030:

Expected contributions to global processes:

NDCs/NAPs: xx %* of countries reference Cement explicitly or indirectly** in their NDCs. (*Awaiting detailed analysis).(**indirect to be defined in a sufficiently robust manner to enable tracking)

Global Stocktake (GST): The Cement & Concrete Breakthrough strengthens and enables international cooperation across the cement/concrete sector to help implement the key outcomes of the Global Stocktake. By mobilizing governments, industry, and finance institutions around shared priorities, it supports the global transition toward a low-carbon built environment (housing and infrastructure).

In particular, it contributes GST outcomes to:

- “Increasing the resilience of infrastructure and human settlements to climate change impacts to ensure basic and continuous essential services for all” - para. 63 (e)-: A resilient built environment is foundational for safe, thriving communities—ensuring that everyone, everywhere, can access shelter and essential services even as climate impacts intensify.
- “Accelerating zero- and low-emission technologies, including, inter alia, renewables, nuclear, abatement and removal technologies such as carbon capture and utilization and storage, particularly in hard-to-abate sectors” - para. 28 (e)-
- “There is a need for further research and development of technologies in all sectors, but particularly in “hard to abate” sectors and in technologies that are required to achieve net zero emissions by 2050” - Art 95. - from the “Summary report following the second meeting of the technical dialogue of the first global stocktake under the Paris Agreement”

2030 Climate Solutions targets: This PAS directly supports the cement/concrete Targets under the 2030 Climate Solutions - directly representing the delivery of target “Make low- and near-zero-carbon cement/concrete the preferred choice in global markets”

SDGs: contributes directly to SDG11 (Sustainable Cities and Communities), SDG13 (Climate Action); strong co-benefits in regards to SDG3 (Good Health and Well-Being), SDG6 (Clean Water and Sanitation), SDG8 (Decent Work & Economic Growth), SDG9 (Industry, Innovation, and Infrastructure), and SDG12 (Responsible Consumption and Production).

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Tracking Delivery Through the Plan's Outputs:

The Plan to Accelerate Solutions provides a structured framework for implementing the Cement & Concrete Breakthrough priority actions agreed by countries and partners. It focuses international cooperation on three critical outputs essential to achieving the 2030 goal. Each output includes a 2030 success statement and quantitative indicators to define impactful delivery and track measurable progress. This structure ensures implementation is outcome-driven, enables consistent monitoring, and aligns the efforts of across stakeholders and sectors toward system-wide impact.

A potential tool to track some of the “qualitative indicators” is the GNR that refers to the data gathered and managed in the GCCA in Numbers (GNR) database, which tracks energy use and CO2 emissions in the global cement industry to monitor sustainability progress. Originally managed by the World Business Council for Sustainable Development's Cement Sustainability Initiative (CSI), the database is now managed by the Global Cement and Concrete Association (GCCA). Price Waterhouse Coopers (PwC) is the project management consultant which hosts the GNR data on their data platform and ensures confidentiality, independent verification and managing of the process.

PAS Output	Agreed International Priority Action	2030 Impact Success Statement	Quantitative Indicator(s)
Output 1: Definitions, standards and certification Priority: High	Build global consensus & alignment towards globally recognized low-carbon and near-zero definitions/ratings, to streamline the procurement process for both public and private entities.	Governments adopt low and near zero carbon ratings for cement/concrete.	Number of countries adopting and implementing the rating system. Tracking of the global clinker factor as well as the waste use through the GNR tool.
Output 2: Demand creation Priority: High	Rapidly grow demand offtake for low and near-zero emission cement and concrete	Governments implement public procurement of low and near-zero emission cement and concrete Growth of Private sector offtake and purchase agreements.	Number of countries with low and near-zero emission cement and concrete in their public procurement. Number of countries working towards GPP policies for cement and concrete tracked through commitments to IDDI's GPP Pledge. Tonne of cement / m3 of concrete covered by Private sector procurement pledges
Output 3: Strengthening the finance and	Scale up public and private finance and de-risking mechanisms	<i>Scaled-up delivery programmes for international financial and technical assistance have enabled a critical mass of projects across</i>	Number of “lighthouse” projects for the deployment of near-zero emission cement production in EMDEs reaching final investment decisions, enabled

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investment landscape for decarbonization of the industry Priority: High ~		<i>all regions, building on pilot assistance programmes and learnings from RD&D and early near-zero emissions cement projects.</i>	through delivery programmes.
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Output	Action Scope	Action	Type of action	Implementation Lever	Responsible	Time horizon	Stakeholder engagement ¹	Committed Stakeholders
Definitions, standards and certification: Accelerate the development of standards for low-emission and near-zero emission cement and concrete	Low-carbon and near-zero definitions/ratings for cement and concrete (by strength categories)	Support implementation of low-carbon and near-zero definitions/ratings for cement and concrete (by strength categories) that are interoperable, accounting for different EPD practices.	Existing ... ▾	Policy & re... ▾	IDDI, GCCA, IEA, ConcreteZero, Climate Club	November ... ▾	Regulators &... ▾	
		Adoption of low-carbon and near-zero definitions/ratings for cement and concrete (by strength categories) that are interoperable, accounting for different EPD practices.	New action ▾	Policy & re... ▾	IDDI, GCCA, IEA, ConcreteZero, Climate Club	November ... ▾	Multi-stakeh... ▾	Countries
	Publish white paper defining wastes that can be used as 'alternative fuels' to help widen and deepen use of unrecyclable and unusable waste to replace fossil fuels and mineral inputs into cement kilns.		Existing ... ▾	Knowledg... ▾	GCCA	November ... ▾	Multi-stakeh... ▾	
	Publish New Energy and CO2 protocol for cement plant level reporting production (incl.		Existing ... ▾	Standards ... ▾	GCCA	June 2026 ... ▾	Companies ▾	

¹ Such as national governments, companies, investors, cities and local governments, technical institutions, MDBs, regulators & public agencies, utilities & system operators, youth & indigenous peoples groups, multi-stakeholders platform (non-exhaustive)

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	accounting for CCUS) to further congruence with standards developments for products (EPDs)							
	If approved by ISO, create ISO International Workshop Agreement on harmonization of GHG accounting standards for industrial products and publish sectorally harmonized guidelines—laying the foundation for international interoperability and transparency.	Host virtual and in-person workshops for the IWA and develop the guidelines for harmonization, if approved by ISO.	Existing ... ▾	Standards ... ▾	ITA/IDDI	November ... ▾	Multi-stakeh... ▾	IDDI, ITA, DIN
	Publish reproducible framework for benchmarking the embodied carbon of concrete on markets	Alongside a first market benchmark for Singapore, and drawing on learnings from market benchmarking efforts in other markets, mainly the UK, presenting a template other markets can use to replicate this work, relatively consistently in other markets.	New action ▾	Standards ... ▾	ConcreteZero	November ... ▾	Companies ▾	
Demand Creation: Rapidly grow demand offtake for low and near-zero emission cement and concrete	Operationalising the IDDI's Green Public Procurement (GPP) Pledge for low- and near-zero emission cement, concrete, and steel in public infrastructure projects, signaling demand to accelerate decarbonization of heavy industry.	Implementation of the IDDI GPP Pledge with increased participation to promote demand for low- and near-zero emission materials in public procurement	Existing ... ▾	Demand ▾	IDDI	November ... ▾	Countries ▾	CEM IDDI/UNIDO
		Update GPP Pledge to enhance inclusivity for developing economies,	New action ▾	Demand ▾	UNIDO/IDDI	November ... ▾	Multi-stakeh... ▾	IDDI member countries and Pledged

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	reflecting lessons learned globally and introducing pathways for both starter and leading governments to participate.							governments
	Launch of second annual GPP pledge progress report.	New action ▾	Demand ▾	IDDI	November ... ▾	Countries ▾		
Exploring a collective government pledge on cement/steel demand–supply		Existing ... ▾	Demand ▾	Climate Club	November ... ▾	Countries ▾		
Increase the number of companies signing the FMC demand commitment and increasing the projects in the First Suppliers Hub		Existing ... ▾	Demand ▾	FMC	November ... ▾	Companies ▾		
Increase ConcreteZero signatories of commitments	Initiative will look to increase membership numbers year-on-year, expanding into new markets and deepening engagement with those at all stages of journey towards specifying and procuring lower carbon (and net zero) concrete	Existing ... ▾	Demand ▾	Concretezero	November ... ▾	Companies ▾		
Publish a definitions landscape report with guidance on defining and applying thresholds for low-emission cement, concrete, and steel in GPP policies, supporting	Develop a report on definitions and thresholds for low-emission materials in green public procurement	Existing ... ▾	Knowledg... ▾	IDDI	November ... ▾	Multi-stakeh... ▾		

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	governments in setting effective procurement criteria.							
	Expand on already published guidance to engage organisations through case studies on how to implement lower carbon concrete processes across their projects		Existing ... ▾	Knowledg... ▾	Concretezero	November ... ▾	Companies ▾	
	Publish Policy Recommendations paper focused on capturing the demand side perspective		Existing ... ▾	Knowledg... ▾	concretezero	November ... ▾	Multi-stakeh... ▾	
	Paper on potential Lead Market creation in the EU to stimulate the demand for low-carbon materials (including cement) and fuels. ITA Green Purchase Toolkit supports companies that want to invest in green industrial products and services by offering alternative ways to tackle the challenges of long-term offtake agreements.		Existing ... ▾	Demand ▾	ITA/E3G ITA/ WBCSD	November ... ▾	Multi-stakeh... ▾	
Fostering greater collaboration, education, innovation and scale-up of technology around industry	Net-zero industries awards & webinars to expand knowledge sharing through webinars		Existing ... ▾	Knowledg... ▾	MI NIM	November ... ▾	Multi-stakeh... ▾	
	Released whitepaper on the successful application		Existing ... ▾	Knowledg... ▾	MI NIM	November ... ▾	Multi-stakeh... ▾	

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decarbonization	of AI to collate and enhance existing knowledge sharing and databases on enabling decarbonisation technologies							
	Establishment of a Global Research Network to drive collaboration and productivity in essential technology development and demonstration		Existing ... ▾	Knowledg... ▾	MI NIM	November ... ▾	Multi-stakeh... ▾	
	Update of sector progress through the MPP green project pipeline and LeadIt/GCCA cement technology tracker		Existing ... ▾	Knowledg... ▾	MPP, LeadIt/GCCA	November ... ▾	Multi-stakeh... ▾	
	Development of CCUS studies	Completion of two emerging economy CCUS country studies	Existing ... ▾	Technolog... ▾	GCCA	November ... ▾	Multi-stakeh... ▾	
		Completion of six further emerging economy studies on CCUS plus six on calcined clay	New action ▾	Knowledg... ▾	GCCA	November ... ▾	[] ▾	
	Research & Development projects development	Publication of 120 journal articles across 80 projects by the Innovandi Global Cement and Concrete Research Network which unites over 450 scientists and 80 PhD researchers who collaborate to accelerate research	Existing ... ▾	Knowledg... ▾	GCCA	November ... ▾	Multi-stakeh... ▾	

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	A further 40 projects commenced by the Innovandi Global Cement and Concrete Research Network	Existing ... ▾	Knowledg... ▾	GCCA	November ... ▾	Multi-stakeh... ▾	
Publication of white papers on policy enablers for SCM & blended cement, CCUS and waste as an alternative to coal		Existing ... ▾	Policy & re... ▾	GCCA	November ... ▾	Regulators &... ▾	
Good practices publication	Publication of example of policy good practice enabling cement co processing	New action ▾	Policy & re... ▾	GCCA	June 2027 ... ▾	Multi-stakeh... ▾	
	Publication of example of policy good practice enabling cement CCUS	New action ▾	Policy & re... ▾	GCCA	November ... ▾	Multi-stakeh... ▾	
Develop roadmaps to net zero worldwide	More than 50% of the countries in volume (outside of China) will have detailed roadmaps to zero with forecast of technology-specific contributions to decarbonization	Existing ... ▾	Supply ▾	GCCA and others	November ... ▾	Companies ▾	
	A further 12 countries will have roadmaps in progress/complete 2026-28 incl.	New action ▾	Supply ▾	GCCA and others	November ... ▾	Multi-stakeh... ▾	
Knowledge assessment	Engagement and categorisation of primary stakeholder needs (via current initiatives) for cement	New action ▾	Knowledg... ▾	MI-NIM	November ... ▾	Multi-stakeh... ▾	

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	sector adoption of technology solutions to decarbonise						
Increasing the number of countries with enhanced capacities to adopt cement and concrete decarbonization pathways and technologies	Provision of technical assistance and capacity building on cement and concrete decarbonization pathways and technologies at the request of countries	New action ▾	Inclusive d... ▾	CTCN	November ... ▾	Countries ▾	
Enabling knowledge exchange and collaboration on cement and concrete decarbonization pathways and technologies in Africa	Delivery of a regional cement decarbonization workshop in Africa	New action ▾	Knowledg... ▾	CTCN	November ... ▾	Multi-stakeh... ▾	
Multi-initiative action on sharing and curating knowledge	Identification of opportunities to increase collaboration and sharing Potential to utilise AI to assist in improving all data contained in current tools and trackers Potential to expand incentivisation programs (awards, competitions, links and conditions on funding Building a central repository and knowledgebase available to all initiatives and stakeholder in sector (shared with other sectors to benefit from	New action ▾	Knowledg... ▾	MI-NIM	November ... ▾	Multi-stakeh... ▾	

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		cross-sector technology learnings and policy strategies)						
		Business Breakthrough Barometer report capturing the voice of business on the net zero transition, including policy recommendations per sector (including the Cement & Concrete sector)	Existing ... ▾	Knowledg... ▾	WBCSD, Breakthrough Agenda, the Climate High-Level Champions and Marrakech Partnership Industry Group,	June 2026 ... ▾	Companies ▾	
Strengthening the finance and investment landscape for decarbonization of the industry	Mapping of financing and technical assistance report Improve understanding of finance assistance needs and availability needed for sector transition Study on “Scaling up assistance for industrial decarbonisation	Launch of the updated industry decarbonisation financing toolkit with workshop in Dec. 2025	Existing ... ▾	Knowledg... ▾	Climate Club & OECD	June 2026 ... ▾	Multi-stakeh... ▾	
		Mapping of financing and technical assistance report	Existing ... ▾	Knowledg... ▾	Climate Club, OECD	November ... ▾	Multi-stakeh... ▾	
		Study on “Scaling up assistance for industrial decarbonisation	Existing ... ▾	Knowledg... ▾	OECD, IEA	November ... ▾	Multi-stakeh... ▾	
		ITA Insights Briefing on financing solutions for energy efficiency and optimisation projects at existing industrial facilities (including cement) in emerging economies, using Brazil as a case study.	Existing ... ▾	Public/priv... ▾	ITA/MPP	June 2026 ... ▾	Multi-stakeh... ▾	Cement producers, technology providers, government bodies, financial institutions, NGOs
	Brazil project support	India-Sweden Industry Transition Partnership	Existing ... ▾	Knowledg... ▾	LeadIt	November ... ▾	Multi-stakeh... ▾	

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program launched + enabling conditions for final investment decisions Projects and partnerships to support decarbonisation projects	results + showcase lessons learnt						
	Brazil project support program launched + enabling conditions for final investment decisions	Existing ... ▾	Supply ▾	ITA	November ... ▾	Multi-stakeh... ▾	
	ITA in-country Project Support Programmes: designed to orchestrate solution implementation and provide tailored support to selected projects and to deliver critical cross-sectoral interventions, including for deep decarbonisation cement projects. The programmes would involve establishing partnerships with project developers, including for cement & concrete plants, and mobilising domestic and international industry, energy, demand, and finance players to leverage expertise and learnings from diverse networks	Existing ... ▾	Public/priv... ▾	ITA/MPP	November ... ▾	Multi-stakeh... ▾	
Book & Claim chain of custody scheme to enable credible and traceable decarbonization in cement and concrete, allowing environmental benefits to be claimed without		New action ▾	Public/priv... ▾	GCCA	November ... ▾	MDBs ▾	

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	physical product delivery and helping de-risk deep decarbonization investments, especially in regions with limited carbon regulation							